ARTICLES

Elimination of the Depletion Deduction for Fossil Fuels

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I. INTRODUCTION

The Appalachian region is a coal-producing area that has been environmentally devastated over the years by the effects of coal mining and fossil fuel extraction. One problem has been that fossil fuel companies and mine operators have been granted tax incentives to extract the minerals, but little money has gone back into preserving the environment from whence the minerals came. One of the most significant tax incentives, and the subject of this article, is the "depletion deduction," codified in Internal Revenue Code section 611.

The depletion deduction allows fossil fuel companies and mine operators to deduct an amount equal to the reduction in value of their mineral reserves as the mineral is extracted and sold.[1] The deduction is intended to allow the taxpayer to recover his capital investment so that it will not be impaired as the minerals are extracted and sold.[2] Notwithstanding this purpose, the taxpayer need not have invested any money in the mineral rights, and legal title is not required in order to take advantage of the deduction.[3] Both the Internal Revenue Service (I.R.S.) and the taxpayers who extract oil or mine coal have been in mutual agreement for nearly a decade regarding the entitlement to a

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1. I.R.C. § 611 (2000).

2. Comm'r v. Southwest Exploration Co., 350 U.S. 308, 312 (1956).

3. Goodfellow v. Comm'r, 83 T.C.M. (CCH) 1733 (2002), No. 8469-00, 2002 WL 1063925, at *4 (U.S. Tax Ct. May 28, 2002) (citing Kirby Petroleum Co. v. Comm'r, 326 U.S. 599, 603 (1946).

deduction for the depletion of the operator's fossil fuel reserves pursuant to section 611. Through the depletion deduction, fossil fuel exploiters avoid approximately $10 billion in taxes every year.[4]

In past decades, a significant number of cases have examined whether mineral rights operators who did not own the surface land, and in many cases had no title to the minerals, were entitled to the deduction.[5] Although there have been fewer reported cases in recent years, as well as little debate regarding whether the operator or surface owner was entitled to the deduction, it is time to take a step back to reexamine the wisdom of allowing depletion deductions for mineral rights. The rising costs of fossil fuels and expected fuel shortages, coupled with the recent emergence of technologically feasible and economically viable renewable energy sources, make this a timely topic.

The mineral depletion deduction is a unique one. Other businesses are not allowed to deduct the reduction in value of their raw materials or inventory as they sell their products. For example, bakers are not allowed a deduction for the depletion of their flour supply, and boat builders are not allowed a deduction for the depletion of their boat inventory, nor even for the parts that go into the finished boats. So why are mineral extractors granted a deduction for depletion of their product as it is extracted?

This article argues that the depletion deduction provision is a misguided incentive that has been falsely analogized and justified, and it should be abolished in order to provide funds to protect and preserve the environment. The additional revenue generated should be used to encourage the development of renewable resources and to remediate the harm caused by the extraction and use of fossil fuels. Specifically, the depletion deduction for reduction in the supply of nonrenewable resources such as coal and oil should be eliminated to (1) ensure certain and equal treatment under the tax laws; (2) encourage development of renewable energy resources thereby abating further environmental harm caused by mining and extraction of fossil fuels; and (3) increase tax revenue to fund reparations for damages caused by coal mining and oil extraction.

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4. I.R.S., PUB. NO. 1136, 21 STATISTICS OF INCOME BULLETIN 79, 122 (2001) [hereinafter I.R.S. STATISTICS BULLETIN].

5. Martin J. McMahon, Jr., *Licensees and Economic Interest in Minerals After* Swank *and Revenue Ruling* 83-160, 72 KY. L.J. 787 (1983/1984) (discussing the economic interest test used to determine eligibility for the depletion deduction) [hereinafter *After Swank*]; *see also* Martin J. McMahon, Jr., *A Capsule View of the History and Importance of the Economic Interest Concept in Mineral Taxation*, 27 TULSA L.J. 313 (1992) [hereinafter *Capsule View*].

In order to provide the reader with a greater understanding of the characteristics of the depletion deduction, Part II compares the mineral depletion deduction with the standard business depreciation tax deduction. Part III examines in greater detail the benefits that would be realized from eliminating the depletion deduction, including ensuring greater certainty and equal treatment in the law, encouraging the use and development of renewable resources, and increasing tax revenues that might be used to repair some of the damages done to the environment and society by fossil fuel extraction. Part IV sums up the issues in a conclusion.

II. DEPLETION VS. DEPRECIATION

The depletion deduction is often compared to the depreciation deduction available to businesses.[6] In actuality, the purposes of the two deductions are different because they deal with different types of assets.[7] Moreover, the depletion deduction results in unequal treatment under the tax laws.

When a tangible business asset is used to perform services or produce products, the cost of the asset may be depreciated over time by the taxpayer.[8] If the business asset has a useful life of more than one year, the asset cannot be deducted as an expense in one year, but it may be deducted over a number of years through depreciation.[9] The purpose of the depreciation deduction is to accurately report income; if the asset were deducted as an expense in one year, then income for that year would be distorted to appear less than it actually is.[10]

In comparison, the depletion deduction is available only to businesses that extract natural resources such as coal and other minerals, oil and gas, geothermal deposits, and standing timber.[11] The depletion deduction is calculated in one of two ways:[12] by means of the "cost depletion" method[13] or the "percentage depletion" method.[14]

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6. *See, e.g.*, Parsons v. Smith, 359 U.S. 215, 221 (1959).

7. *See* United States v. Swank, 451 U.S. 571, 576 (1981); *see also* JACOB MERTENS JR., LAW OF FEDERAL INCOME TAXATION, § 24:01, 24–27 n.3 (West 2000) (noting the depletion deduction's purpose is to encourage the further development and exploitation of certain natural resources).

8. CCH ED. STAFF, FEDERAL TAX COURSE 2001 (CCH) ¶ 700, at 703 (2001) [hereinafter FEDERAL TAX COURSE 2001].

9. *Id.*

10. *Id.*

11. *Id.* ¶ 700, at 704.

12. *Id.* ¶ 788, at 761.

13. *Id.* ¶ 789, at 761; *see also* I.R.C. § 612 (2000) (defines the basis of cost depletion).

14. FEDERAL TAX COURSE 2001, *supra* note 8, ¶ 790, at 764; *see also* I.R.C. § 613(a) (2000) (defines general rule for percentage depletion).

Cost depletion is calculated by dividing the cost of the mineral rights by the number of tons of ore estimated in the property, multiplied by the number of tons extracted and sold that tax year.[15] Percentage depletion, on the other hand, is calculated by multiplying the gross income by a figure set by the I.R.S.[16] The reasons for favoring one calculation over the other depend upon on income, reserves, and other factors specific to each mineral rights owner.

No matter which computation method is used, the depletion deduction is still different in character and effect from the depreciation deduction. One primary difference is in the type of assets to which each deduction applies. The depreciation deduction compensates the taxpayer for the capital loss that accrues when an asset that is used to produce a product or provide a service declines in value with age.[17] In contrast, the depletion deduction for minerals or other natural resources compensates taxpayers for reduced value of assets that are not used to *produce* a product, but instead *are* the product.[18] The minerals are the raw materials or inventory used by the taxpayer. In this way, the depreciation deduction and the depletion deduction are very different.

A second difference between the two deductions is that, unlike taxpayers utilizing the depreciation deduction, fossil fuel exploiters are allowed to deduct for double the value of their assets. A significant number of mineral extractors lease, rather than own, their mineral rights, and therefore can deduct the lease payments as business expenses.[19] Allowing a deduction for the depletion of the asset as well as for the lease payments results in the deduction exceeding the initial investment in the asset.

This article does not propose to eliminate all deductions currently allowed mine operators and fossil fuel companies. Those taxpayers retain the deductions for expenses related to the development of mines or other natural deposits[20] and for intangible drilling costs,[21]

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15. FEDERAL TAX COURSE 2001, *supra* note 8, ¶ 789, at 761.

16. Gross income is multiplied by 10% for coal (limited to 50% of the taxable income) or 100% for oil and gas. *Id.* ¶ 790, at 764 (explaining computation provided in I.R.C. § 613(a)).

17. *Id.* ¶ 700, at 703.

18. *See id.* ¶ 788, at 761.

19. *See* I.R.C. § 162(a)(3) ("There shall be allowed as a deduction . . . rentals or other payments required to be made as a condition to the continued use or possession, for purposes of the trade or business, of property to which the taxpayer has not taken or is not taking title or in which he has no equity.").

20. *See* I.R.C. § 616 (2000).

21. *See* I.R.C. § 312(n)(2).

as well as the credit for investment in fossil fuels.[22] There are also significant state tax incentives for investing in fossil fuels that remain viable; for example, some states provide tax incentives when electricity-generating stations utilize coal mined in-state.[23] Although many of the arguments used against the depletion deduction could also be applied to oppose these alternative tax incentive provisions, this article is limited to the federal income tax depletion deduction.

III. BENEFITS OF ELIMINATING THE DEPLETION DEDUCTION

Eliminating the depletion deduction would ensure certainty and equal treatment under the tax laws; encourage the development of renewable energy sources, thereby abating further environmental harm caused by mining and extraction of fossil fuels; and create increased tax revenue to fund reparations for damages caused by coal mining and oil extraction. Each of these benefits is examined in turn below.

A. Ensure Certainty and Equal Treatment Under the Current Tax Laws

The depletion deduction has caused a significant amount of litigation in past decades because of the lack of clarity as to who—the landowner or the lessee of the mineral rights who extracts the coal or other minerals—is entitled to the deduction.[24] Courts have consistently held that the owners of an "economic interest" are entitled to the deduction, while the owners of an "economic advantage" are not so entitled.[25]

I.R.S. regulations interpret section 611 to allow a depletion deduction only if the taxpayer has an economic interest in the mineral rights, as opposed to a mere economic advantage.[26] In *Parsons v. Smith*, the Supreme Court found that taxpayers having an economic interest were entitled to a depletion deduction even if they were merely lessees of the mineral property.[27] The Court examined seven factors to determine whether the lessee had an economic interest in the mineral rights and was therefore entitled to the deduction.[28] According to the *Parsons* Court, the depletion deduction is denied to a tax-

22. *See* I.R.C. § 29.

23. *See, e.g.*, VA. CODE ANN. § 58.1-2626.1(A) (Michie 2001).

24. *See Capsule View*, *supra* note 5 (discussing the evolution of the economic interest rule over twelve cases); *After Swank*, *supra* note 5.

25. *Parsons*, 359 U.S. at 221–22 & n.7 (citing the line of cases distinguishing economic interest from economic advantage).

26. 26 C.F.R. § 1.611-1(b)(1) (2001).

27. *Parsons*, 359 U.S. at 220–21.

28. *Id.* at 225.

payer/lessee if: 1) the taxpayer's investment is in equipment, not in the coal or mineral in place; 2) the equipment investments are recoverable through depreciation; 3) the contracts are terminable without cause on short notice (according to the *Swank*[29] Court and later private letter rulings, this fact alone is not determinative); 4) the landowners did not surrender any capital interest in the coal in place; 5) the coal belonged to the landowners even after extraction; 6) the taxpayer was paid a fixed sum for extraction and did not participate in the proceeds of the sale of the coal; and 7) the taxpayer looked solely to the landowner for payment, not to the sale of coal.[30]

The *Parsons* Court denied the depletion deduction to coal strip-mine contractors who did not have an ownership interest in the coal.[31] The taxpayer contractors, normally employed as road-builders, had entered into a short-term oral agreement, terminable at the will of the landowner, to strip mine the coal on designated tracts of land.[32] The taxpayers were paid a fixed amount for each ton of coal extracted, regardless of the ultimate selling price obtained by the landowner.[33]

In disallowing the deduction, the Court stated that the purpose of the depletion deduction is to compensate the owner for the part of a wasting asset that is used in production,[34] and that the deduction was designed to allow the owner's capital investment to remain unimpaired as the minerals are exhausted.[35] The Court also noted that the decision whether to allow the deduction was "entirely a matter of grace,"[36] thereby placing the burden of proof of an economic interest—and thus entitlement—on the taxpayer.[37] Ignoring the issues of who had legal title to the land or the underlying minerals, the Court instead focused on the right to share in the minerals extracted and on the other factors listed above.[38]

Given that the contracts at issue in *Parsons* were terminable by the landowner without cause on short notice, the Court held that the lessee taxpayers had no economic interest or capital investment in the coal.[39] However, the Court left the door open for similarly situated

29. *Swank*, 451 U.S. 571.
30. *Parsons*, 359 U.S. at 225.
31. *Id.* at 226.
32. *Id.* at 216–17.
33. *Id.* at 217.
34. *Id.* at 220.
35. *Id.* at 220 (quoting Comm'r v. Southwest Exploration Co., 350 U.S. 308, 312 (1956)).
36. *Id.* at 219.
37. *Id.*
38. *Id.* at 221.
39. *Id.* at 224.

lessee operators to negotiate for the entitlement to the deduction when it stated, "[o]f course, the parties might have provided in their contracts that petitioners would have some capital interest in the coal in place, but they did not do so—apparently by design."[40] The denial of the deduction only applied to the lessee/coal operator; the deduction still remained available to the holder of the economic interest—in this case, the landowner.[41]

Following the Court's suggestion in *Parsons,* a contractual assignment of the deduction entitlement may persuade a court to allow the deduction for a lessee. In a 1980 Private Letter Ruling, a taxpayer successfully followed the suggestion of the *Parsons* Court by stipulating in the lease contract that the taxpayer/lessee was entitled to the deduction.[42] Similarly, a 1998 Field Service Advisory allowed the deduction where the taxpayer had an agreement with its lessor that the taxpayer would take all depletion deductions.[43] In that case, the taxpayer was a mine operator and a lessee of mineral reserves who was to sell all mined minerals to the lessor. The lessor bore all costs of machinery and equipment and could terminate the agreement at will. The I.R.S. supported this decision by noting that the taxpayer "looked to the minerals for a return of its capital investment."[44] The I.R.S. placed great weight on the fact that the taxpayer had purchased the mineral leases and subleases. Because the taxpayer had an investment in the minerals themselves, the deduction was allowed.[45]

After standing untouched for twenty years, the *Parsons* test was modified in *United States v. Swank.*[46] The modification allowed lessee taxpayers to deduct for depletion in a broader range of circumstances. Specifically, the Court held that the I.R.S. could not deny the deduction to an otherwise eligible lessee/taxpayer merely because the lease was subject to termination on short notice.[47] The facts in *Swank* are substantially different from those in *Parsons.* In *Swank,* the taxpayer invested significant sums of money on nonmovable assets such as access roads and the tipple,[48] and the taxpayer sold the coal at whatever

40. *Id.* at 226.
41. *Parsons,* 359 U.S. at 220–21; *see also Swank,* 451 U.S. at 578–79 & n.11.
42. Priv. Ltr. Rul. 80-38-161 (June 30, 1980).
43. I.R.S. Field Service Advisory, 1998 WL 1984206 (June 9, 1998).
44. *Id.*
45. *Id.*
46. 451 U.S. 571, 579 (1981) (White, J., dissenting).
47. *Swank,* 451 U.S. at 585.
48. *Id.* at 574–75. A coal tipple is a structure used for loading extracted coal onto trucks or other transport vehicles.

price the market would bear, paying a royalty to the lessor.[49] The Court affirmed a Court of Claims decision in favor of the taxpayer, which reversed the original I.R.S. denial of the deduction.[50]

In his dissent, Justice White, joined by Justice Stewart, agreed that any right to a depletion allowance must be based on a capital investment in the minerals in place.[51] However, because the I.R.S. had determined that a short-term revocable lease was not a sufficient economic interest to justify the depletion deduction, the dissent determined that the I.R.S. interpretation of its own regulation should be given deference.[52] The dissent also found the market risk analysis to be unpersuasive based on the reasoning of earlier decisions that required a more in-depth analysis of all seven *Parsons* factors used to determine whether an economic interest exists.[53] The dissent noted that the market risk analysis was illusory in nature because it was "dependent on the lessor's willingness to permit continued extraction of the coal."[54] It is this type of conflict that undermines the certainty of the tax obligation and favors elimination of the depletion deduction as uncertain and confusing.

In a technical advice memorandum issued the same year as *Swank*, the I.R.S. further broadened the definition of economic interest.[55] Even though the landowner in that case guaranteed a base price for the coal extracted by the taxpayer/operators, and even though the taxpayer had no control over the sale of the coal, the I.R.S. found the taxpayer entitled to the depletion deduction.[56] The term of the taxpayer's exclusive right to mine was "until all [the] . . . coal has been mined."[57]

A later revenue ruling broadened the *Swank* rule, holding that the terminability of a mineral lease at the will of the lessor is not a deciding factor, and that there is no minimum period during which the lessee must have a right to extract minerals to prove an economic interest.[58]

The lack of certainty regarding entitlement to the depletion deduction continues to cause litigation, costing taxpayers considerable

49. *Id.* at 582–83.
50. *Id.* at 585.
51. *Id.* at 586.
52. *Id.* at 586 (White, J., dissenting).
53. *Id.* at 593–94.
54. *Id.*
55. Tech. Adv. Mem., 82-16-007 (Dec. 7, 1981).
56. *Id.*
57. *Id.*
58. Rev. Rul. 83-160, 1983-2 C.B. 99, 1983 WL 190203 IRS RRU.

expense. In one of only a few recent cases where the depletion deduction was denied, the taxpayer claimed depletion of excavated materials that were subsequently discarded by the landowner.[59] The court recognized that under *Parsons*, the taxpayer has the burden of proving entitlement to the deduction, and that the deduction is a matter of legislative grace. The purpose of the deduction is "to compensate a taxpayer for minerals consumed in the production of income resulting from extraction,"[60] "so that when the minerals are exhausted, the taxpayer's investment in the mineral deposit remains unimpaired."[61] The court noted the lack of investment in the discarded materials and their low value.[62] This attempted manipulation of the tax laws—claiming depletion of worthless discards—should be avoided by eliminating the depletion deduction altogether.

As the above cases illustrate, the depletion deduction's ambiguity is evident in situations where the taxpayer is a lessee because of the conflict between landowners and lessees as to who is entitled to the deduction.[63] The result is even less certain and less fair when the lessee/mine operator is paying a rental payment calculated to reflect the amount of the mineral present, has already been allowed to deduct the rental payments as a business expense,[64] and then may be allowed to deduct the total rental payments as depletion of the minerals when the lessee extracts the minerals. This is not an unusual situation given that the vast majority of mineral lands are leased to operators, rather than mined by owners.

Although some tax experts would disagree with manipulation of the tax laws to foster social change, the tax laws have been used in this way throughout history. Taxes are added to cigarettes[65] and alcohol[66] to discourage the harmful effects of smoking and drinking. Luxury taxes are added to expensive automobiles.[67] The use of a graduated scale for income tax is an attempt to redistribute wealth, taxing the wealthy at a higher rate. Eliminating the depletion deduction would also impact taxpayer behavior. Fossil fuel operators would be unable to deduct from taxable income the reduced stock of coal or other minerals, and so would report a higher taxable income, resulting in greater

59. *Goodfellow*, 2002 WL 1063925, at *3.
60. *Id.* at *4 (citing Anderson v. Helvering, 310 U.S. 308, 313–14 (1940)).
61. *Id.* (citing Paragon Jewel Coal Co. v. Comm'r, 380 U.S. 624 (1965)).
62. *Id.*
63. *See, e.g., id.*
64. *See* I.R.C. § 162(a)(3) (2000).
65. I.R.C. § 5701 (2000).
66. I.R.C. § 5001 (2000).
67. I.R.C. § 4001 (2000).

revenue. The operators may argue that their taxable income would thus be artificially inflated, as the reduction in their capital investment is not taken into account. However, this is no different from adding additional taxes to cigarettes and alcohol that are not added to other consumables. The tax laws have been used in each instance to affect consumption.

The depletion deduction results in a significant reduction in tax revenue for the government, and an increase in net income for the taxpayers. In 1999, partnerships with net income deducted a total of $338,567,000 for depletion, with mining accounting for $259,469,000 of that total.[68] In 1998, corporate income tax returns included a total deduction of $9,685,686,000 for depletion.[69] If the depletion deduction were eliminated, nearly $10 billion in additional revenue could be collected per year and used to both develop renewable energy sources and repair the damage caused by mining and oil drilling. This statistic excludes the value of other incentives and allocations granted to the fossil fuel companies. In 1993, tax breaks and other subsidies to the fossil fuel industry cost the government $20 billion per year.[70] The United States government "contributed nearly $3 billion to the development of new coal-burning technologies through the Clean Coal Technology Program."[71] This legislative support of fossil fuels continues in the Energy Policy Act of 2002.

B. Encourage the Development of Renewable Energy Sources

Elimination of the depletion deduction will make coal and oil more costly, thereby encouraging the use of alternative energy sources.[72]

> The United States is responsible for nearly one-fourth of the world's energy consumption. The vast majority of its energy

68. I.R.S. STATISTICS BULLETIN, *supra* note 4.

69. *Id.* at 199. Total depletion deductions taken by corporations in 1980–1998 averaged $9.3 billion.

70. JOHN J. BERGER, CHARGING AHEAD 10 (1997) (citing DOUGLAS N. KOPLOW, FEDERAL ENERGY SUBSIDIES, ENERGY, ENVIRONMENTAL, AND FISCAL IMPACTS (1993)).

71. Blair G. Swezey & Yih-huei Wan, *The True Cost of Renewables: An Analytic Response to the Coal Industry's Attack on Renewable Energy*, National Renewable Energy Lab., U.S. Dep't of Energy, *at* http://www.nrel.gov/analysis/emaa/pubs/ceed/ceed.html (last visited Nov. 15, 2002).

72. The author acknowledges that certain tax incentives currently exist for renewable resources, including credit for electricity produced by wind or biowaste. I.R.C. § 45 (2001). However, the tax incentives for fossil fuels far exceed the tax incentives available for renewable energy sources. Because of the damage caused by fossil fuel combustion, the public policy should be reversed to favor renewable energy sources.

> supplies comes from fossil fuel sources such as coal, oil, and natural gas . . . . Federal policies targeted at mineral and energy source protection have included regulation of the price of natural gas and other commodities, [and] subsidization of oil exploration and nuclear development . . . . However, the United States has never had a comprehensive energy policy and today continues its precarious reliance on fossil fuels.[73]

A study by Shell International Petroleum Corporation predicts that renewable energy sources may be providing almost as much energy as all fossil fuels and nuclear energy combined by 2050.[74]

1. Recent Legislation

Although there are recent efforts in Congress to support funding of renewable energy resource research and development, more needs to be done. The potential effect of pending legislation, the Energy Policy Act of 2002, is to limit funding available for renewable resource research and development and to artificially deflate the costs of fossil fuels.

Congress intended the Energy Policy Act of 2002,[75] a comprehensive proposal to provide energy tax incentives, to be a step in the right direction by encouraging the development of cleaner energy sources.[76] The bill, which is still being considered by the Senate, would appropriate $500 million in fiscal year 2003 for research and development of enhanced renewable energies including wind, photovoltaics, geothermal, and biofuels.[77] This $500 million allocation for renewable energies development is in stark contrast to the nearly $1.4 billion appropriated for fossil fuels, including $697 million appropriated in the Act for development of onshore oil exploration and production technologies, the $485 million for natural gas technologies,[78] the $200 million for coal-based power plant improvements,[79] and the $12 million for advanced coal mining technology.[80]

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73. William R. Lowry, *Natural Resource Policies in the Twenty-First Century*, *in* ENVIRONMENTAL POLICY 303, 307 (Norman J. Vig & Michael E. Kraft eds., 4th ed. 2000).

74. BERGER, *supra* note 70, at xv.

75. Energy Policy Act of 2002, Engrossed Senate Amend., H.R. 4, 107th Cong. (2002), WL 2001 CONG US HR 4.

76. *Id.* at 1 (noting that the bill's purpose is "[t]o enhance energy conservation, research and development and to provide for security and diversity in the energy supply for the American people, and for other purposes").

77. *Id.* § 1221(e)(1).

78. *Id.* § 1231(c)(1)(A).

79. *Id.* § 1232(e)(1).

80. *Id.* § 1233(b).

Congress continues to support the fossil fuel industry by providing funding, tax credits, deductions, and loans that artificially decrease the costs of these fuels, making renewable energy sources appear more expensive. This policy should be reversed, with more funding provided for the research and development of renewable resources to reduce the environmental harm caused by the use of fossil fuels.

2. Economic Advantages of Renewable Resources

As coal, oil, and other fossil fuels become more expensive following the elimination of the depletion deduction and the removal of artificial price supports, renewable energy sources will become more competitively priced. Affordable renewable energy would improve the economy, environment, and public health because (1) the threat of shortages, price increases, and political embargoes will subside following the removal of reliance on fossil fuels;[81] (2) smog and acid rain would be eliminated or reduced because combustion would not be necessary;[82] and (3) the threat of global warming would be abated.[83]

Renewable resources are becoming more economical[84] and could become cheaper than fossil fuels if the tax incentives for nonrenewable energy sources were eliminated.[85] Currently, oil and coal prices are kept artificially low by the depletion deduction, among other tax incentives.[86] In comparison, solar cell panels that cost $1,000 per watt in the 1960s declined to only $4.00 per watt by the mid-1990s, with the cost likely to decline even further in the future.[87] "Wind already provides energy more cheaply than many oil, coal, and nuclear-fired power plants."[88] Today, hydropower can produce electricity at seven-tenths of a cent per kilowatt-hour. That equates to one-third the cost of fossil fuel or nuclear-generated electricity, and one-sixth the cost of natural gas, according to the Wisconsin Valley Improvement Authority.[89] Even with the artificially reduced costs of fossil fuels, renewable

81. BERGER, *supra* note 70, at 3–4.

82. *Id.* at 4.

83. *Id.*

84. *See* Claudine Schneider, *Changing Our Ways or Changing the Earth's Climate*, 19 ENVTL. L. REP. 10208 (1989) (discussing the damages of global warming caused by fossil fuel combustion and the lack of funding for research into renewable energy sources).

85. BERGER, *supra* note 70, at 6.

86. RICHARD L. ANDREWS, MANAGING THE ENVIRONMENT, MANAGING OURSELVES 296 (1999); *see also* Swezey & Wan, *supra* note 71, at 4.

87. BERGER, *supra* note 70, at 5.

88. Karl Mallon et al., *Breaking the Solar Impasse: A Briefing from Greenpeace* (Sept. 1999), *at* http://archive.greenpeace.org/~climate/renewables/reports/kpmgbrief.pdf.

89. *See* Wisconsin Valley Improvement Co., *Facts About Hydropower*, *at* http://www.wvic.com/hydro-facts.htm (last visited Nov. 15, 2002).

resources are cost-competitive when the cost of fossil fuel's harm to the environment is taken into account.[90]

3. Environmental Harm Caused by Coal Mining and Use of Fossil Fuels

Coal mining pollutes the air and streams, and destroys drinking water springs[91] and surface land through subsidence cracks and floods.[92] Coal operations negatively impact the surface owner's ability to farm or use their land by building haulage roads wherever convenient to the coal operations, drilling gas wells with miles of pipes to drain away the methane gas, and adding tipples, buildings, and other structures as necessary or convenient to their businesses.

Coal mining operations cause water, air, and aesthetic pollution of the Appalachian region, where much of the nation's coal is mined.[93] Coal operations cause black lung disease, cancer, eye problems, and other health effects on both miners and residents living near the coalfields. Back pain and repetitive motion injuries are also common for miners.[94]

Fossil fuel combustion causes air pollution that costs $150 billion per year in damages,[95] including $4 billion per year that electricity consumers will be required to pay under the Clean Air Act Amendments of 1990.[96] The Energy Policy Act of 2002 appropriates $3.9 billion for removal of greenhouse gases from the atmosphere, caused by fossil fuel combustion.[97] Oil spills are also an environmental risk and an expected hazard when transporting fossil fuels. Nuclear energy

90. BERGER, *supra* note 70, at 6; *see also* Swezey &Wan, *supra* note 71, at 2–3.

91. BERGER, *supra* note 70, at 11.

92. *See, e.g.*, Large v. Clinchfield Coal Co., 387 S.E.2d 784, 784–85 (Va. 1990); *see also* CAROL A.B. GIESEN, COAL MINERS' WIVES: PORTRAITS OF ENDURANCE (1995).

93. *See, e.g.*, GIESEN, *supra* note 92.

94. *See id.* at 56; Wendy B. Davis, *Out of the Black Hole: Reclaiming the Crown of King Coal*, 51 AM. U. L. REV. 905, 952–53 (2002).

95. BERGER, *supra* note 70, at 10 (citing F. Barber et al., *Environmental Damage Due to Fossil Fuels Use*, 15 INT'L J. OF HYDROGEN ENERGY (1990)); *see also Technologies for Remediating Global Warming: Hearing Before the Natural Resources, Agriculture Research and Environment Subcomm. of the House Comm. on Science, Space, and Technology*, H.R. DOC. NO. 100-137, at 142, 149 (1988) (statement of T. Nejat Veziroglu) (estimating that fossil fuel combustion costs the United States several hundred billion dollars per year in environmental destruction, public health impacts, and economic losses to property and commodities).

96. Swezey & Wan, *supra* note 71, at 4.

97. Energy Policy Act of 2002, *supra* note 75, § 1015.

is not the answer because of construction cost overruns, catastrophic accident risks, and radioactive waste disposal issues.[98]

Renewable energy sources such as solar, wind, and hydropower are the only reasonable solution. These alternative sources should be encouraged by tax incentives, rather than encouraging the use of fossil fuels through continued incentives like the depletion deduction. Eliminating the depletion deduction would increase tax revenues that could be allocated for remediation of the environmental harm caused by the combustion of fossil fuels.

C. Increased Tax Revenues Could Fund Reparations to Appalachia

Supplying coal to power the industry of this nation has taken a toll on the land and the residents of the coalfields in Appalachia. A portion of the tax revenues generated by eliminating the depletion deduction could help establish a fund to begin to correct the damage to Appalachia.[99] The economic, environmental, and social problems of Appalachia can be blamed directly on coal.[100] The extraction of coal has made a few people and corporations wealthy, while consigning the majority of residents to poverty, illness, and ecological devastation.[101] Infrastructure such as roads, airports, and educational facilities are needed to make the region self-supporting and equal with the rest of the country.

The federal government has set a precedent by paying reparations to disparaged groups,[102] and it is imperative that the government do as much for the Appalachian mountaineers who have suffered this historical injustice. Reparations should be delivered to town and county governments to improve education, transportation, and infrastructure. Mine owners, as beneficiaries of the coal, should pay indirectly for such reparations through elimination of the depletion deduction. Without such funding, Appalachia will continue to be an eyesore and an embarrassment to the rest of the nation. Reparations could restore the beautiful green hills to their original majesty for the benefit of all Americans.

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98. BERGER, *supra* note 70, at 18; *see also* Ralph Nader & Richard Pollock, *The Industry's Worst Enemy*, *in* NUCLEAR POWER: BOTH SIDES 141, 141–42 (Michio Kaku & Jennifer Trainer eds., 1982).

99. *See generally* Davis, *supra* note 94.

100. *Id.*

101. *Id.*

102. *Id.* Reparations have been paid to Native Americans. 25 U.S.C. §§ 1401–1408 (2001) (establishing a fund to pay claims). Reparations have also been paid to Japanese Americans incarcerated during World War II. 50 U.S.C. app. §§ 1989(4)–(5), 1989a (2002).

IV. CONCLUSION

The depletion deduction provided by Internal Revenue Code section 611 deprives the U.S. government of billions in potential revenue each year. The deduction is uncertain in application, resulting in litigation expenses to determine entitlement, and encouraging the continued use of fossil fuels rather than the development of renewable energy sources that could be cleaner, safer, and cheaper. The purpose of the deduction was to preserve capital investment in mineral rights, which encouraged the exploitation of this nation's natural resources.[103] The companies that invest in mineral rights no longer need this incentive because the financial rewards of such investments are sufficient without the depletion deduction. The uncertainty of return that existed when the deduction was enacted in 1909 no longer exists[104] because technology is capable of determining the quantity and quality of the recoverable minerals, thus virtually eliminating the risk of investment.

The depletion deduction should be eliminated, with the revenue generated thereby used for development of renewable energy resources and reparations to those areas most harmed by the use of fossil fuels. The economy and the environment would be better served if the tax policy of this nation favored renewable energy sources over fossil fuels.

103. *See* MERTENS, *supra* note 7, §§ 24-02, 24-11.
104. *Id.*